**Outline**

- Class Survey / Role Call
- What is:
  - the web/internet?
  - web programming?
  - this class?
- Course Admin
  - Syllabus
  - Policy
  - Tips

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**History of the World in Just 4 Slides, Part 1**

- **ARPANET**
  - Implemented in late 1960’s by ARPA (Advanced Research Projects Agency of DOD)
  - Networked computer systems of a dozen universities and institutions with 56KB communications lines
  - Grandparent of today’s Internet
  - Intended to allow computers to be shared
  - Real benefit?

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**History of the World in Just 4 Slides, Part 2**

- ARPA’s goals
  - Allow multiple users to send and receive info at same time
  - Use packet switching technique
    - Digital data sent in small packages called *packets*
    - Packets contained data, address info, error-control info and sequencing info
    - Greatly reduced transmission costs of dedicated communications lines
    - Operate without centralized control
      - If portion of network fails, remaining portions still able to route packets
  - Huge variety of networking hardware and software appeared
  - Development of TCP/IP protocols enabled interoperation
History of the World in Just 4 Slides, Part 3

- Internet initially just for universities and research labs
  - Military became big user
  - Next, government decided to access Internet for commercial purposes
- Internet traffic grew
  - Businesses spent heavily to improve Internet
    - Better service their clients
  - Fierce competition among communications carriers and hardware and software suppliers
  - Result
    - Bandwidth (info carrying capacity) of Internet increased tremendously
    - Costs plummeted

History of the World in Just 4 Slides, Part 4

- WWW
  - Allows computer users to locate and view multimedia-based documents
  - Introduced in 1990 by Tim Berners-Lee
- W3C – www.w3.org
  - Founded in 1994 by Tim Berners-Lee
  - Devoted to developing non-proprietary and interoperable technologies for the World Wide Web and making the Web universally accessible
  - Standardization
    - W3C Recommendations: technologies standardized by W3C
      - include Extensible HyperText Markup Language (XHTML), Cascading Style Sheets (CSS) and the Extensible Markup Language (XML)
    - Document must pass through Working Draft, Candidate Recommendation and Proposed Recommendation phases before considered for W3C Recommendation

Web vs. Internet

- Internet – collections of computers/devices that can communicate
  - telnet, ftp, SMTP(mail)
- Web – software/protocols that has been installed on (most of) these computers
  - http / https

Client/Server Computing

Computation can occur in ____________ location
Browser Portability

- Browser portability
  - Great challenge
    - Great diversity of client browsers in use
  - Many different platforms also in use
- Difficult to
  - Know capabilities and features of all browsers and platforms in use
  - Find correct mix between absolute portability, complexity and usability of features

Things we’ll learn and do

- XHTML – basics, tables, forms, frames
- Cascading Style Sheets
- JavaScript
- Dynamic HTML
- CGI

Things we’ll hear about

- Accessibility
- Web ethics
- “Semantic Web”
- XML
- And maybe touch upon…
  - Flash
  - Image creation (PhotoShop)

Things we won’t have time for

- ASP, .NET
- Perl
- Java Servlets
- JavaServer Pages (JSP)
- PHP
Admin – Assignments

• Assignments will be on the course calendar  
  • First reading – due Wednesday in class  
    – Skim chapters 1-2 (see calendar for notes on Ch. 2)  
    – Read chapter 4 (likely quiz Wednesday)  
  • First homework – email due Wednesday by 1600  
    – Read course policy  
    – Read Lab Guidance (on the web) – pick a topic  
    – Email topic to instructor (subject: "IT350 Lab topic")  
  • Deadlines  
    – Reading (+ quiz) – usually due Wednesday  
    – Lab – usually due Wednesday start of class  
  • Late assignments  
    – After start of class, before 0755 next day: -10%  
    – Before 0755 of 2nd day: -25%  
    – After that, not accepted  
    – Late quizzes not accepted!

Textbook Structure

• Chapters 1-20  
  – Covers XHTML, JavaScript, Dynamic HTML, Flash and Extensible Markup Language (XML)  
  – For applications running on client side (typically Netscape and Microsoft Internet Explorer)  
• Chapters 21-38  
  – Covers Web servers, databases, Active Server Pages, Perl/CGI, PHP, ColdFusion, Python, Java servlets and JavaServer Pages  
  – For applications running on server side (complex computer systems where Web sites usually reside)

Textbook Analysis

• Good

• Less good

Success in IT350

• Do the reading – usually due Wednesday  
  – Brief lecture to highlight key points  
• Lecture – stay engaged  
  – Ask & answer questions  
  – Take notes – provided slides are not enough!  
• Make the most of in-class lab time  
  – Read lab in advance  
  – Think before you start typing  
  – Don’t stay stuck!  
• Don’t fall behind  
  – Finish lab early and leave time for reading  
  – See me for help and/or talk to friends  
  – Course material builds on itself and gets more complex